



Shared Prosperity Dignified Life



الجمعية العلمية الملكية
Royal Scientific Society
المركز الوطني لبحوث الطاقة
National Energy Research Centre



Access to Finance for Municipalities – Nexus Thinking and Decentralization of Subnational Governments”

Access to Finance, Feasibility Studies, and Project Bankability

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Content

- Feasibility study
- Project Bankability
- Access to finance

Feasibility study

Main components of a full feasibility study:

- Technical feasibility
- Legal feasibility
- Financial feasibility
- Economic feasibility
- Social and Environmental Impact Assessment

Feasibility study

■ Technical feasibility

- What the technical solution to be implemented ?
- In what extend the technology to be used is mature?
- Is it compliance with the technical environment where it will be implemented ?
- Availability of the skilled resources for implementation and operation?
- What are the technical performances of the project : saved energy/water, energy production, by-products, etc.?
- How the project will be implemented and how the responsibility will be distributed?
- What is the schedule of the project implementation?

Feasibility study

■ Legal and institutional feasibility

- What are the national and local regulations related to the project implementation and operation?
- What are the legal requirements for the project ?
- Does the national regulations allow the implementation of the project?
- Who are the key external stakeholders of the project and their expected positions ?
- Which administrations are concerned by the project at national and local levels?
- What are the institutional arrangements?

Feasibility study

■ Financial feasibility

- What are the main economic and financial assumptions: Capex, Opex, financing conditions...?
- What is the minimum level of profitability you required from the project ?
- What are the cashflow provided by the project on its lifetime?
- What is the profitability of the project: IRR, payback period, Net present value, etc.?
- Is the project provide your required profitability level?
- Is the project able to pay the debts?
- What is the financial robustness of the projects?

Feasibility study

■ Economic feasibility

- What are the economic benefits at macrolevel?
- What are the economic impacts on the key stakeholders?
- Who are the losers and the winners ?
- What are the strategies to mitigate the attitude of the losers?

■ Project risks

- What are the technical risks: technology risks, operation risks, etc.
- What are the financial risks?
- What are the legal and institutional risks ?
- What are the political risks ?
- What are the measures to mitigate these various risks ?

Feasibility study

■ Environmental and Social and Impact Assessment

- What is the situation before the project (baseline)
 - What are the main social impacts?
 - What are the main environmental impacts of the project at local level and global levels?
 - How to mitigate the negative effects of the project?
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- For some categories of projects, the ESIA is required by national regulation and also by the financial institutions
 - For large project ESIA, is required to be done according to international standards (IFC standards).

Project bankability

Documentation required by the financial institutions

- **Letter of Application:** Letter of Application from the applicant to the bank
- **Financial Information on the Applicant**
 - Applicant's audited financial statements for past three years
 - Tax return for the last three years.
 - Financial Analysis Report that indicates the financial health of the applicant
 - Information relating to creditworthiness such as assets for collateral and any credit guarantees.

Project bankability

Documentation required by the financial institutions

■ Project documents

- Business Plan document, including financial model
- Technical feasibility study
- Financial feasibility study
- Risk management of the project
- Environment and Social Impact Study, if required
- Any other relevant documents for the project, such as legal authorization, Partnership agreements, etc.

Project bankability

Creditworthiness appraisal

- The main objective of financial institution is **to minimize its risk** regarding the loan provided to the project holder.
- Credit analysis is the process of evaluating an applicant's loan request in order to check the likelihood that the borrower will live up to his/her obligations
- No matter how strong a project may be from a technical and financial point of view, lenders will always want to **check the overall creditworthiness** of the potential borrower.
- Therefore, profitability estimates and cashflow projections will be analysed not only for the specific project, but also for the borrower as a whole.
- The basic components of credit analysis are known under the '**Five C's**'

Project bankability

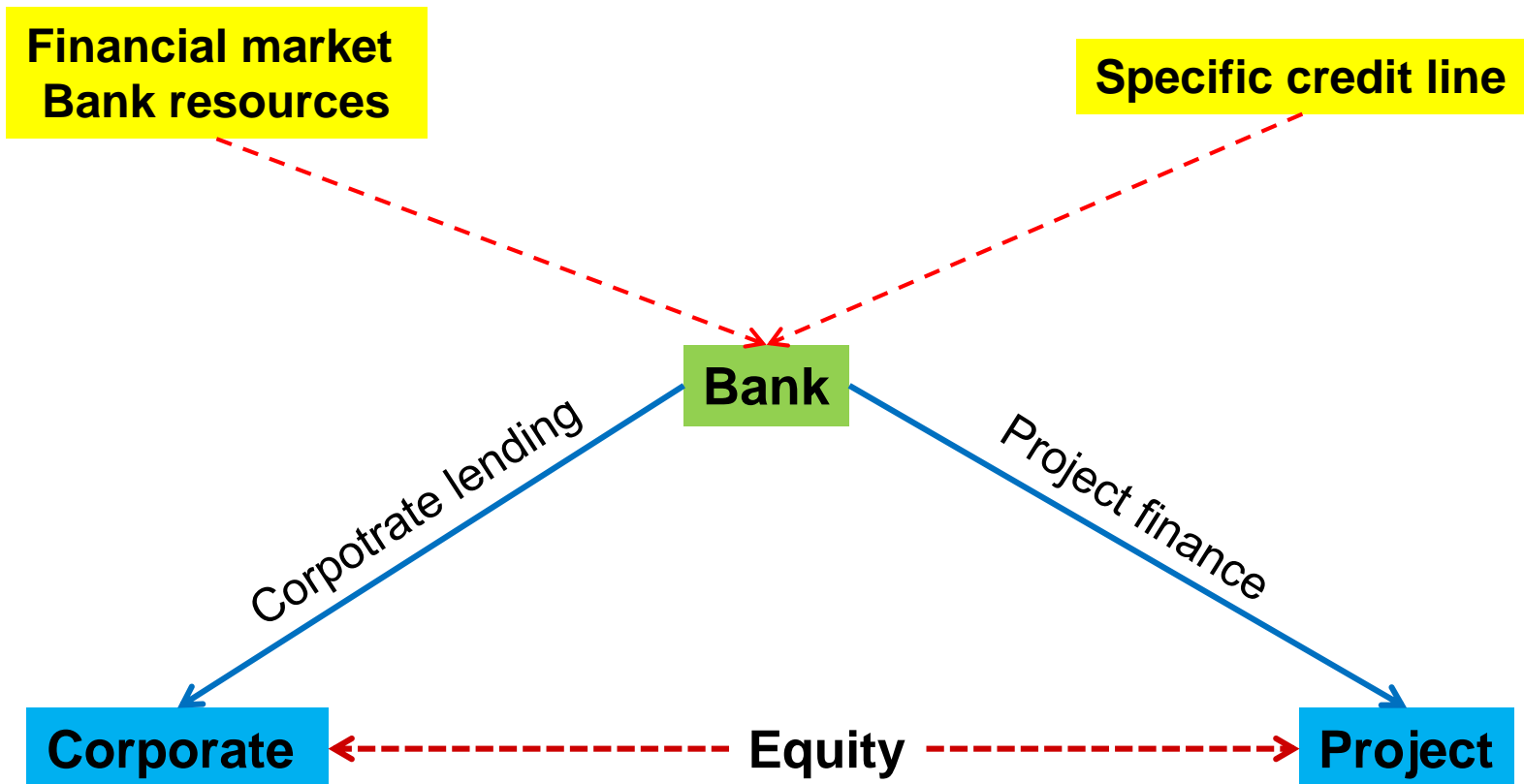
Creditworthiness appraisal

The five “C”:

- **Capacity:** Your ability (from technical, financial and managerial point of view) to run the business and to return the loan.
- **Capital:** Long term sustainability of your institution and of its sources of finance. Therefore, profitability estimates and cash flow projections will be analysed not only for the specific project, but also for the borrower as a whole.
- **Collateral:** Strength and safety of the proposed security package in case the repayment failed.
- **Conditions:** The intended purpose of the loan (working capital, additional equipment) and how the borrower performs in the market
- **Character:** The integrity of your business and its management and whether or not you are sufficiently trustworthy to repay the loan.

Potential financing sources

General financing sources



- Corporate lending: Loan is given to the corporate
- Project finance: Loan is given to the project

Potential financing sources

General financing sources

- Corporate lending: Low restriction on how the loan will be used. The reimbursement is guaranteed by the corporate performances
- Project finance: The reimbursement of debt is linked to the project revenues. **The performance of the project is key issue for the bank**
- The debt can be:
 - **Senior debt** : The reimbursement of the loan is to be paid in priority
 - **Mezzanine debt**: it sits between the senior debt and the equity. It is paid after the senior debt but prior to equity. It costs higher than the senior debt since it is more risky
- Equity: Private investor to participate in the equity of the project

Potential financing sources

Green Climate Fund

- Created by the UNFCCC during the CoP15 at Copenhagen and officially launched in COP17 at Durban
- Financed by the contribution of developed countries
- Objective: Financial support to developing countries for mitigation and adaptation projects to climate change
- Managed by a specific board with a fiduciary management from of the WB
- Mode of financing: Concessional loans, subsidies, equity, guaranties.
- Procedures: need for approval from the national focal point and to be submitted through an accredited entity
- Current amount: USD 10,2 billion
- Engaged projects: 124 projects for USD 5,6 billions (42% mitigation, 24% adaptation and 34% cross-cutting)

<http://www.greenclimate.fund>

Example of relevant financing schemes

Energy Service Company (ESCO)

What is an ESCO?

A ESCO is a company who delivers energy services and / or other measures to improve EE for a user, and who accepts a certain level of financial risk to do so

· Payment for the services is based (in whole or in part) on the achievement of EE improvements and on the satisfaction of other agreed performance criteria.

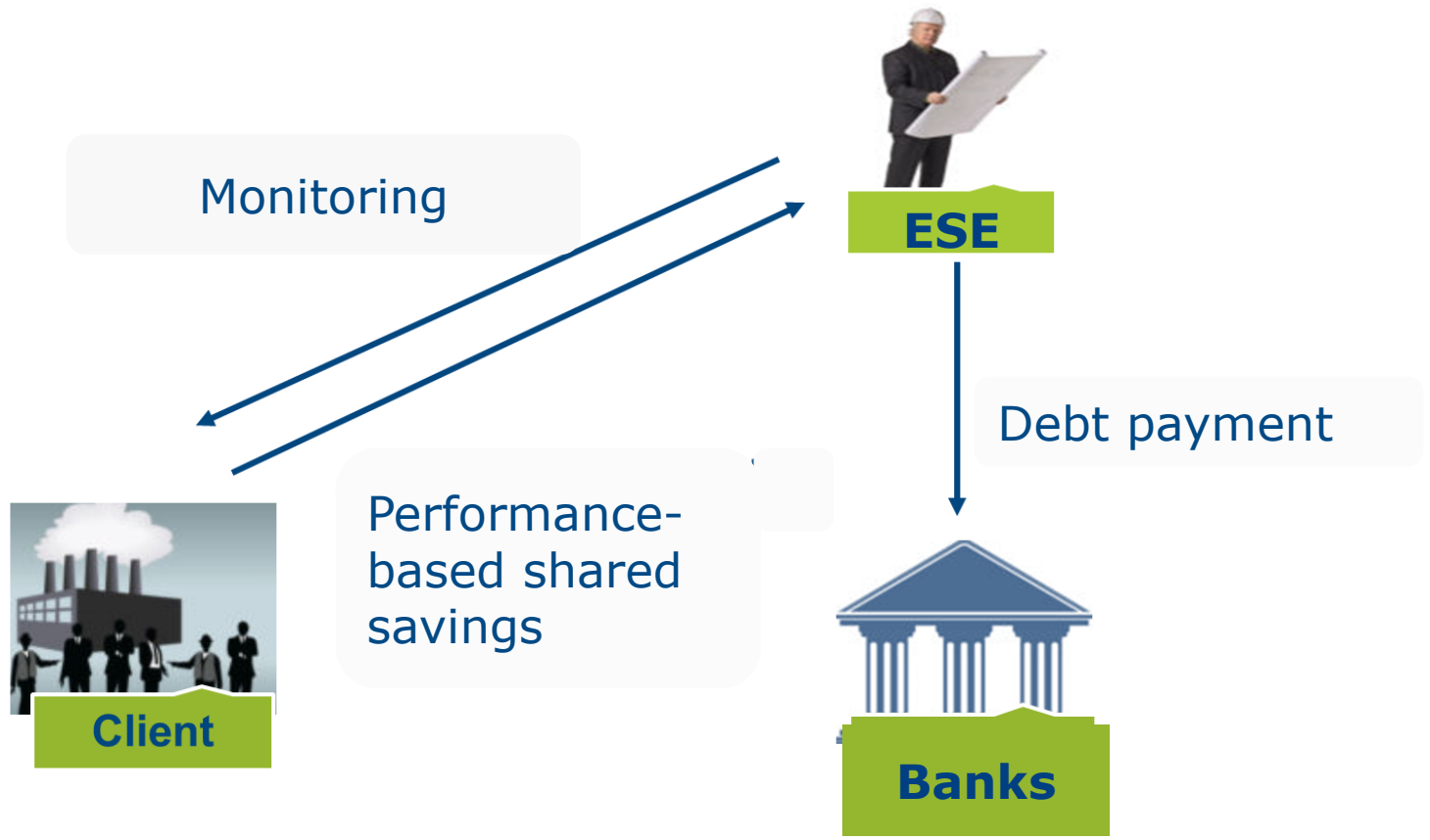
Why use an ESE model?

To guarantee the energy performance of a user compared to a reference situation

Example of relevant financing schemes

Energy Service Company

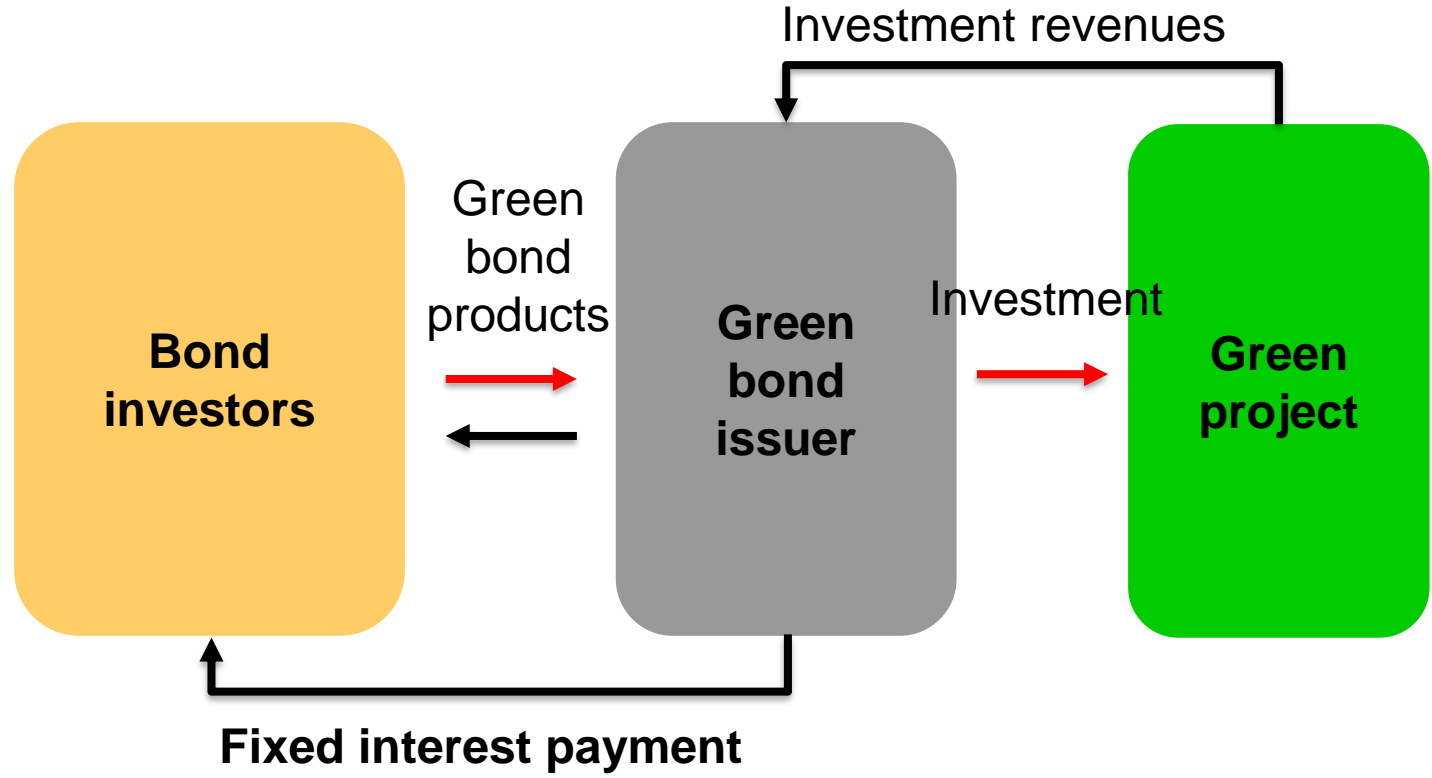
Example: model with energy saving share



Example of relevant financing schemes

Green bonds

Allows the issuer to use the products to invest in projects with environmental benefits



Source: <https://www.climatebonds.net/market/explaining-green-bonds>

Example of relevant financing schemes

Green bonds

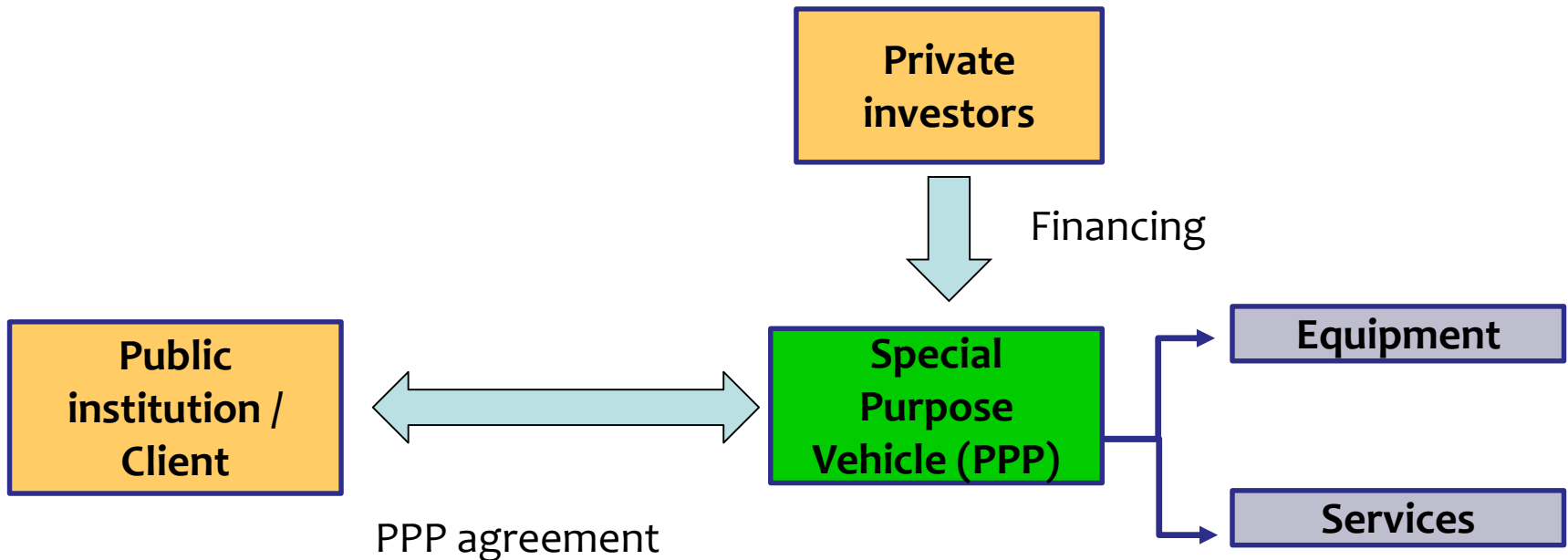
Example of projects

Issuer	Issuance date	Issuance size	Tenor & coupon	Rating	Use of proceeds	Independent review
Mexico City Airport Trust	29 Sep 2016	USD 1 billion	10 yrs, 4.25%;	Baa1 (Moody's)	Invest in reducing GHG emissions from airport buildings, mitigating the risk of water pollution through more efficient wastewater management	Sustainalytics, Moody's (GB1), S&P (E1/77)
		USD 1 billion	30 yrs, 5.50%			
Mexico City	15 Dec 2016	MXN 1 billion (USD 50 million)	5 yrs, 6.02% (initial floating rate)	AAA (Fitch), Aaa (Moody's)	Finance sustainable buildings, climate change adaptation, sustainable transport, water efficiency and wastewater management	Sustainalytics

Example of relevant financing schemes

Public Private Partnership

The Public institution (or the Municipality) reimburse the investment directly from the benefits of the project (ex. energy savings).



Example of relevant financing schemes

Leasing

- Leasing is a common way of dealing with the initial cost barrier by obtaining the right to use an asset (rather than the possession of this asset)
- Leasing do not require external collateral
- The period of contract is less than the lifetime of the equipment
- The lessor (investor) pays all maintenance and servicing costs.
- Two main types of leases:
 - **Capital lease:** the lessee is required to show the leased equipment as an asset and the present value of lease payments as debt on its balance sheet.
 - **Operating leases:** The lease payments are treated as an expense for accounting purposes.

Thanks